

ABSTRACT OF THE DISCLOSURE

This invention provides an isolated mammalian nucleic acid molecule encoding a PAK4 serine/threonine kinase. This invention provides an isolated nucleic acid molecule encoding a mutant homolog of the mammalian PAK4 serine/threonine kinase whose amino acid sequence is set forth in Figure 1A (SEQ ID NO: 2). This invention provides a fusion protein comprising a PAK4 serine/threonine kinase or a fragment thereof and a second peptide. This invention provides a purified mammalian PAK4 serine/threonine kinase. This invention provides a protein comprising substantially the amino acid sequence set forth in Figure 1A. This invention provides a monoclonal antibody directed to an epitope of a PAK4 serine/threonine kinase. This invention provides a method of inhibiting PAK4 function comprising administering a ligand comprising an amino acid domain which binds to a GTP binding protein so as to inhibit binding of the GTP binding protein to PAK4. This invention provides a method of inhibiting PAK4 function comprising administering a ligand which binds to the GTP binding domain of PAK4 so as to inhibit PAK4 binding to a GTP binding protein. This invention provides a method of inhibiting PAK4 serine/threonine kinase function comprising administering a ligand which blocks an ATP binding domain so as to inhibit PAK4 serine/threonine kinase function. This invention provides a method of inhibiting growth of a tumor cell comprising blocking Cdc42Hs by administering a ligand capable of binding to a Cdc42Hs binding site of a PAK4 serine/threonine kinase.